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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/791,189

03/01/2004

Charles John Call

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25268

7590

04/29/2009

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EXAMINER

JARRETT, LORE RAMILLANO

ART UNIT

PAPER NUMBER

1797

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/791,189	<b>Applicant(s)</b> CALL ET AL.	
	<b>Examiner</b> LORE JARRETT	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 1/6/09.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,21,24,29-38 and 44-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,5,21,24,29-38,45-47,49,50,52 and 53 is/are allowed.
- 6) ☒ Claim(s) 4,44,48 and 51 is/are rejected.
- 7) ☒ Claim(s) 52 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/1/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Claims***

1. In light of applicant's reply filed on 1/6/09, applicant amended claims 1, 48, 51, 52. Claims 2-3, 6-20, 22-23, 25-28, and 39-43 are cancelled. Claims 1, 4-5, 21, 24, 29-38, and 44-53 are pending and are under examination.

### ***Response to Amendment***

#### ***Allowable subject matter***

2. In light of applicant's amendments, the indicated allowability of claim 4 is withdrawn. See rejection below.

### ***Prior art rejections***

3. In light of applicant's amendments, the rejection of claims 1, 33, 45, and 52 over the prior art is withdrawn; the rejection of claims 44 and 48 over the prior art is maintained; and the rejection of claim 51 over the prior art is withdrawn. In light of applicant's amendments, a new rejection of claim 51 follows.

### ***Claim Objections***

4. Claim 52 is objected to because of the following informalities: the claimed, "impact plate" should be changed to "impaction plate." Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 is rejected because the scope of the claim is indefinite. It cannot be determined whether the claimed "impaction plate" in claim 4 is referring to the same "impaction plate" that is recited in claim 1 or to another "impaction plate."

***Claim Rejections - 35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. **Claims 44, 48, and 51** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hemeon (US 3572128, previously cited) in view of Call et al. ("Call," US Pub. No. 2002/0124664, previously cited).

As to claim 48, Hemeon discloses an air sensor device (i.e. figs. 1-4) comprising:  
a regenerable solid collection surface for supporting a spot of immobilized airborne particles, the regenerable solid collection surface being specifically configured to remove particles from an air stream by impaction of the air stream against the regenerable solid collection surface (i.e. 24, fig. 3, col. 3, lines 13-58);

means for regenerating the regenerable solid collection surface without removing the regenerable solid collection surface from the air sensor device, such that once regenerated, the regenerable collection solid surface can collect additional particles from the air, such that particles collected before regenerating the regenerable solid

Art Unit: 1797

collection surface are substantially no longer present to contaminate particles collected after regeneration (i.e. 24, fig. 3, col. 3, lines 13-58); and

means for analyzing the spot of immobilized airborne particles while the particles remain disposed on the regenerable solid collection surface without removing the regenerable solid collection surface from the air sensor device (i.e. col. 2, line 59 to col. 3, line 2), to determine if the spot of immobilized airborne particles represents a biological threat.

While Hemeon discloses a means for regenerating another regenerable solid collection surface by removing particles from this regenerable solid collection surface in col. 1, lines 65-69 and col. 2, lines 13-30, Hemeon does not specifically disclose utilizing wipers for the filter paper (24, figs. 3-4) to remove particles from the surface of the filter paper. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Hemeon's invention by incorporating additional wipers to remove particles from the surface of the filter paper because it would be more time- and cost-efficient to continuously clean and re-use the same filter paper.

As to claims 44 and 48, Hemeon does not specifically disclose a particle counter.

Call discloses a sampling system for screening incoming mail to detect potential chemical and biological threats. The mail sampling embodiment includes means for accessing a portion of the air within a parcel, means for aerosolizing any particulates contained within the portion of air removed, a triggering sampler, and a detecting sampler (i.e. [0019]-[0020]). Call further discloses utilizing a particle counter that comprises a nano-ultraviolet diode (nano-UV) pumped solid state laser and a mini

Art Unit: 1797

photomultiplier tube (PMT) optical detectors ("fluorescence detector") for collection of particle fluorescence and elastic scatter information (i.e. [0190], fig. 3B).

At the time of the invention, it would be obvious to a person of ordinary skill in the art to modify Hemeon's invention by incorporating a particle counter configured to determine an amount of airborne particles because particle counters are well known in the art and there are many types of particles counters that are commercially available (i.e. Call, [0188]).

As to claims 44 and 48, Hemeon in view of Call read on the claim language recited after the terms, "configured to," and "capable of," because they are intended use language. While features of an apparatus may be recited structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. Because Hemeon in view of Call disclose the structural features that are capable of performing the intended use language recited after these terms, Hemeon in view of Call properly read on the intended use claim language.

As to claim 51, Hemeon teaches the steps recited in claim 51 (i.e. col. 1, lines 65-69, col. 2, lines 13 to col. 3, line 58).

As to claim 51, while Hemeon discloses that the samples of dust can be measured by optical means in col. 2, line 59 to col. 3, line 2, Hemeon does not specifically teach having a biological signature comprising an autofluorescence.

See Call above.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the detector of Hemeon by specifically utilizing a detector, such

Art Unit: 1797

as Call's PMT optical detector, because it would be desirable to utilize a detection system that is capable of identifying a wide range of biological particulates, such as those that can be identified in response to laser-induced autofluorescence of nicotinamide adenine dinucleotide hydrogen (NADH) and nicotinamide adenine dinucleotide phosphate hydrogen (NADPH) (i.e. [0189], Call).

***Allowable Subject Matter***

9. Claims 1, 5, 21, 24, 29-38, 45-47, 49-50, 52, and 53 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record (Danylewych-May) fails to teach or fairly suggest a device or teach a method comprising a spotting nozzle; the regenerable solid collection surface is part of an impaction plate; a dichroic mirror; an excitation filter or emission filter; a brush, pad, wheel, nozzle, blade, means for electrostatically charging, or means for directing energy as a means for regenerating the regenerable solid collection surface, and a processor coupled to the means for analyzing the spot of immobilized airborne particles, which determines a concentration of particles collected on the regenerable solid collection surface and activates an air sampler to obtain a sample of particles from the same general volume of air that provided the particles originally deposited on the regenerable solid collection surface in combination with the remaining features and elements of the claimed invention.

***Response to Arguments***

10. Applicant's arguments with respect to claims 44, 48, and 51 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LORE JARRETT whose telephone number is (571)272-7420. The examiner can normally be reached on Mon. to Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.



Art Unit: 1797

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jill Warden/  
Supervisory Patent Examiner, Art Unit 1797

LORE JARRETT  
Examiner  
Art Unit 1797

4/24/09